

IN THE CLAIMS:

The following is a complete listing of all pending claims.

1. (Previously Presented) A method, comprising:

receiving beacon frames at beacon intervals;

extracting beacon interval information from a beacon frame;

monitoring data traffic of a terminal;

defining at least one parameter describing a data traffic pattern of the terminal; and

dynamically controlling a power state of the terminal by the terminal, on the basis

of said at least one parameter describing the data traffic pattern of the terminal and the beacon interval information, so that the terminal is maintained in one of at least two power states,

wherein said at least two power states comprise an active state and a power save state.

2. (Previously Presented) A method according to claim 1, wherein the

monitoring comprises monitoring packet sizes and packet intervals of the data traffic.

3. (Original) A method according to claim 2, wherein said at least one

parameter describes packet sizes and packet intervals.

4. (Previously Presented) A method according to claim 1, wherein the controlling comprises determining a sleep interval defining time periods when the power save state is possible.

5. (Previously Presented) A method according to claim 4, wherein the determining comprises determining parameters indicating a timing, a length, and a frequency of the sleep interval.

6. (Previously Presented) A method according to claim 1, further comprising: supplying additional input data comprising at least one requirement parameter describing requirements set by an application, active in the terminal, for the controlling the power state of the terminal.

7. (Original) A method according to claim 6, wherein said at least one requirement parameter indicates the maximum period that the terminal may continuously be in the power save state.

8. (Previously Presented) A method according to claim 6, wherein said at least one requirement parameter indicates the quality of service level required by the application.

9. (Previously Presented) A method according to claim 8, further comprising:
mapping the quality of service level to input parameters for the controlling the power state of the terminal.

10. (Previously Presented) An apparatus, comprising:
a receiver configured to receive beacon frames at beacon intervals;
an extractor configured to extract beacon interval information from a beacon frame;
a traffic monitor configured to monitor data traffic of a terminal and to define at least one parameter describing a data traffic pattern of the terminal; and
a controller configured to manage power for dynamically controlling a power state of the terminal on the basis of said at least one parameter describing the data traffic pattern of the terminal and said beacon interval information to maintain the terminal in one of at least two power states,
wherein said at least two power states comprise an active state and a power save state.

11. (Previously Presented) An apparatus according to claim 10, wherein the traffic monitor comprises a packet analyzer configured to analyze packet sizes and packet intervals.

12. (Previously Presented) An apparatus according to claim 10, wherein the controller comprises an interface configured to control applications residing in the terminal and to receive additional input data from an application, and wherein the additional input data comprises at least one requirement parameter describing requirements set by the application for the controller.

13. (Previously Presented) An apparatus according to claim 10, wherein the terminal is a wireless local area network terminal.

14. (Previously Presented) A system, comprising:

at least one system entity configured to broadcast beacon frames at beacon intervals; and

at least one wireless terminal configured to extract beacon interval information from a beacon frame,

wherein said at least one wireless terminal comprises

a traffic monitor configured to monitor data traffic of said at least one wireless terminal and to define at least one parameter describing a data traffic pattern of the terminal, and

a controller configured to dynamically control a power state of said at least one wireless terminal on the basis of said at least one parameter describing the

data traffic pattern of the terminal and said beacon interval information to maintain said at least one wireless terminal in one of at least two power states,

wherein said at least two power states comprise an active state and a power save state.

15. (Previously Presented) A system according to claim 14, wherein said at least system entity is a wireless terminal.

16. (Previously Presented) A system according to claim 14, wherein said at least system entity is an access point connected to a wired network.

17. (Previously Presented) A system according to claim 14, wherein the traffic monitor comprises a packet analyzer configured to analyze packet sizes and packet intervals.

18. (Previously Presented) An apparatus, comprising:
receiving means for receiving beacon frames at beacon intervals;
extracting means for extracting beacon interval information from a beacon frame;
traffic monitoring means for monitoring data traffic of a terminal and to define at least one parameter describing a data traffic pattern of the terminal; and

controlling means for managing power for dynamically controlling a power state of the terminal by the terminal on the basis of said at least one parameter describing the data traffic pattern of the terminal and said beacon interval information to maintain the terminal in one of at least two power states,

wherein said at least two power states comprise an active state and a power save state.